



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/611,766	07/06/2000	David V. James	SONY-12200	9313
28960	7590	03/01/2005	EXAMINER	
HAVERSTOCK & OWENS LLP 162 NORTH WOLFE ROAD SUNNYVALE, CA 94086			HO, CHUONG T	
			ART UNIT	PAPER NUMBER
			2664	

DATE MAILED: 03/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/611,766

Applicant(s)

JAMES ET AL.

Examiner

CHUONG T HO

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 2664

1. Claims 1-29 are pending.
2. Applicant's arguments filed 11/04/2004 have been fully considered but they are not persuasive.

In the page 3, lines 19-22, page 4, lines 10-14, lines 25-30, page 5, lines 14-18, page 6, lines 3-7, lines 27-31, Applicant alleged that "neither the background section of the present application, Domon nor their combination teach a communication from a first node on a first bus to a second node on a second bus, includes an address value having an address of a routing device, and a routing device used to determine an address of the second node".

The applicant's argument is not persuasive.

The applicant remember that claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Admitted prior art in view of Domon (U.S. Patent No. 6,678,781 B1).

The admitted prior art discloses, see page 3, lines 21-26, routing devices are one example of devices used to route communications between nodes on different buses. Typically, a node on a first bus sending a packet to a node on a second bus, will send an indirect command to the routing device, which writes to a register space within the routing device and request the routing device to send the packet to the node on the second bus. When receiving this request from the node on the first bus, the routing device will then reformulate the packet and send it to the node on the second bus.

Domon (U.S. Patent No. 6,678,781 B1) discloses an address value having bus number (bus ID) and a node number (physical ID, see lines 1-14), together forming

Art Unit: 2664

an address of a routing device (bridges) which is coupled to both the first (50) and second bus (52), and a routing value used to determine an address of the second node (see col. 7, lines 5-12, lines 35-49, the bridge manager node 60 thereafter configured a small network ....assignment of bus ID to all the nodes ....creating a network topology map), together forming an address of the routing device (bridges 11, 12, 10, figures 4E) (see col. 2, lines 53-55, **the bridge manager sets the routing information of the bridges to allow packet transfer between of the buses.**). Clearly, the combined system (Admitted prior art and Domon) teaches a communication from a first node on a first bus to a second node on a second bus, includes an address value having an address of a routing device, and a routing device used to determine an address of the second node. Therefore, it would have been enable the combined system to remap addres values (bus ID and node number) and transmit on the appropriate bus structure directed to the appropriate node.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Admitted prior art in view of Domon (U.S.Patent No. 6,678,781 B1).

In the claim 24, see figure 3, the admitted prior art teaches receiving a communication (packets) from the first node and transmitting the communication on the second bus to the second node (see page 3, lines 21-26, routing devices are one example of devices used to route communications between nodes on different buses. Typically, a node on a first bus sending a packet to a node on a second bus, will send an indirect command to the routing device, which writes to a register space within the routing device and request the routing device to send the packet to the node on the second bus. When receiving this request from the node on the first bus, the routing device will then reformulate the packet and send it to the node on the second bus)

However, the Admitted prior art is silent to disclosing receiving a communication from the first node including an address value having a bus number and a node number, together forming an address of a routing device which is coupled to both the first and second bus, and a routing value used to determine an address of the second bus.

Domon (U.S. Patent No. 6,678,781) discloses a topology map suitable for the network configuration system in a network composed of a plurality of IEEE 1394 serial buses joined by bridges (a routing device) (see col. 3, lines 35-37); comprising: The routing device (bridges 10, 11, 12) coupled to the first bus (bus 50) and the second bus (bus 52) (see figure 4E); Receiving a communication from one of the first plurality of node (see col. 2, lines 3-10), the communication including an address value having bus number (bus ID) and a node number (physical ID) (see col. 7, lines 1-14), together forming an address of the routing

Art Unit: 2664

device (bridges 11, 12, 10, figures 4E), and a routing value (the routing value includes the bus ID and node number (physical ID) corresponding to the node which the router should route the packet ) (see col. 7, lines 5-14, col. 8, lines 52-67) used to determine an address of a targeted one of the second plurality of nodes;

Extracting the routing value (bus ID and node number) from the address value within the communication (see col. 7, lines 5-14, col. 8, lines 52-67);

remapping the address value of the communication to correspond to the address of the targeted one of the second plurality of node utilizing the routing value (see col. 7, lines 5-14, col. 8, lines 52-67);

transmitting the remapped communication with the remapped address on the second bus to the targeted one of the second plurality of nodes (see col. 7, lines 5-14, col. 8, lines 52-67).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the admitted prior art with the teaching of Domon to provide the routing device which coupled the first bus and the second bus in order to perform the whole routing map setting after a bus ID has been assigned to every bus. Therefore, it would have been enable the combined system to remap address values (bus ID and node number) and transmit on the appropriate bus structure directed to the appropriate node.

5. In the claim 1, see figure 3, the admitted prior art teaches receiving a communication (packets) from the first node and transmitting the communication on the second bus to the second node (see page 3, lines 21-26, routing devices are one

Art Unit: 2664

example of devices used to route communications between nodes on different buses. Typically, a node on a first bus sending a packet to a node on a second bus, will send an indirect command to the routing device, which writes to a register space within the routing device and request the routing device to send the packet to the node on the second bus. When receiving this request from the node on the first bus, the routing device will then reformulate the packet and send it to the node on the second bus)

However, the Admitted prior art is silent to disclosing receiving a communication from the first node including an address value having a bus number and a node number, together forming an address of a routing device which is coupled to both the first and second bus, and a routing value used to determine an address of the second bus.

Domon (U.S. Patent No. 6,678,781) discloses a topology map suitable for the network configuration system in a network composed of a plurality of IEEE 1394 serial buses joined by bridges (a routing device) (see col. 3, lines 35-37); comprising: The routing device (bridges 10, 11, 12) coupled to the first bus (bus 50) and the second bus (bus 52) (see figure 4E); Receiving a communication from one of the first plurality of node (see col. 2, lines 3-10), the communication including an address value having bus number (bus ID) and a node number (physical ID) (see col. 7, lines 1-14), together forming an address of the routing device (bridges 11, 12, 10, figures 4E), and a routing value (the routing value includes the bus ID and node number (physical ID) corresponding to the node which the router

Art Unit: 2664

should route the packet ) (see col. 7, lines 5-14, col. 8, lines 52-67) used to determine an address of a targeted one of the second plurality of nodes;

Extracting the routing value (bus ID and node number) from the address value within the communication (see col. 7, lines 5-14, col. 8, lines 52-67);

remapping the address value of the communication to correspond to the address of the targeted one of the second plurality of node utilizing the routing value (see col. 7, lines 5-14, col. 8, lines 52-67);

transmitting the remapped communication with the remapped address on the second bus to the targeted one of the second plurality of nodes (see col. 7, lines 5-14, col. 8, lines 52-67).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the admitted prior art with the teaching of Domon to provide the routing device which coupled the first bus and the second bus in order to perform the whole routing map setting after a bus ID has been assigned to every bus. Therefore, it would have been enable the combined system to remap addres values (bus ID and node number) and transmit on the appropriate bus structure directed to the appropriate node.

6. In the claim 7, see figure 3, the admitted prior art teaches receiving a communication (packets) from the first node and transmitting the communication on the second bus to the second node (see page 3, lines 21-26, routing devices are one example of devices used to route communications between nodes on different buses. Typically, a node on a first bus sending a packet to a node on a second bus, will send



Art Unit: 2664

an indirect command to the routing device, which writes to a register space within the routing device and request the routing device to send the packet to the node on the second bus. When receiving this request from the node on the first bus, the routing device will then reformulate the packet and send it to the node on the second bus)

However, the Admitted prior art is silent to disclosing receiving a communication from the first node including an address value having a bus number and a node number, together forming an address of a routing device which is coupled to both the first and second bus, and a routing value used to determine an address of the second bus.

Domon (U.S. Patent No. 6,678,781) discloses a topology map suitable for the network configuration system in a network composed of a plurality of IEEE 1394 serial buses joined by bridges (a routing device) (see col. 3, lines 35-37); comprising:

The routing device (bridges 10, 11, 12) coupled to the first bus (bus 50) and the second bus (bus 52) (see figure 4E);

Receiving a communication from one of the first plurality of node (see col. 2, lines 3-10), the communication including an address value having bus number (bus ID) and a node number (physical ID) (see col. 7, lines 1-14), together forming an address of the routing device (bridges 11, 12, 10, figures 4E), and a routing value (the routing value includes the bus ID and node number (physical ID) corresponding to the node which the router should route the packet ) (see col. 7, lines 5-14, col. 8, lines 52-67) used to determine an address of a targeted one of the second plurality of nodes;

Art Unit: 2664

Extracting the routing value (bus ID and node number) from the address value within the communication (see col. 7, lines 5-14, col. 8, lines 52-67);

remapping the address value of the communication to correspond to the address of the targeted one of the second plurality of node utilizing the routing value (see col. 7, lines 5-14, col. 8, lines 52-67);

transmitting the remapped communication with the remapped address on the second bus to the targeted one of the second plurality of nodes (see col. 7, lines 5-14, col. 8, lines 52-67).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the admitted prior art with the teaching of Domon to provide the routing device which coupled the first bus and the second bus in order to perform the whole routing map setting after a bus ID has been assigned to every bus. Therefore, it would have been enable the combined system to remap address values (bus ID and node number) and transmit on the appropriate bus structure directed to the appropriate node.

7. In the claim 12, see figure 3, the admitted prior art teaches receiving a communication (packets) from the first node and transmitting the communication on the second bus to the second node (see page 3, lines 21-26, routing devices are one example of devices used to route communications between nodes on different buses. Typically, a node on a first bus sending a packet to a node on a second bus, will send an indirect command to the routing device, which writes to a register space within the routing device and request the routing device to send the packet to the node on the

Art Unit: 2664

second bus. When receiving this request from the node on the first bus, the routing device will then reformulate the packet and send it to the node on the second bus)

However, the Admitted prior art is silent to disclosing receiving a communication from the first node including an address value having a bus number and a node number, together forming an address of a routing device which is coupled to both the first and second bus, and a routing value used to determine an address of the second bus.

Domon (U.S. Patent No. 6,678,781) discloses a topology map suitable for the network configuration system in a network composed of a plurality of IEEE 1394 serial buses joined by bridges (a routing device) (see col. 3, lines 35-37); comprising:

The routing device (bridges 10, 11, 12) coupled to the first bus (bus 50) and the second bus (bus 52) (see figure 4E);

Receiving a communication from one of the first plurality of node (see col. 2, lines 3-10), the communication including an address value having bus number (bus ID) and a node number (physical ID) (see col. 7, lines 1-14), together forming an address of the routing device (bridges 11, 12, 10, figures 4E), and a routing value (the routing value includes the bus ID and node number (physical ID) corresponding to the node which the router should route the packet ) (see col. 7, lines 5-14, col. 8, lines 52-67) used to determine an address of a targeted one of the second plurality of nodes;

Extracting the routing value (bus ID and node number) from the address value within the communication (see col. 7, lines 5-14, col. 8, lines 52-67);

Art Unit: 2664

remapping the address value of the communication to correspond to the address of the targeted one of the second plurality of node utilizing the routing value (see col. 7, lines 5-14, col. 8, lines 52-67);

transmitting the remapped communication with the remapped address on the second bus to the targeted one of the second plurality of nodes (see col. 7, lines 5-14, col. 8, lines 52-67).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the admitted prior art with the teaching of Domon to provide the routing device which coupled the first bus and the second bus in order to perform the whole routing map setting after a bus ID has been assigned to every bus. Therefore, it would have been enable the combined system to remap address values (bus ID and node number) and transmit on the appropriate bus structure directed to the appropriate node.

8. In the claim 18, see figure 3, the admitted prior art teaches receiving a communication (packets) from the first node and transmitting the communication on the second bus to the second node (see page 3, lines 21-26, routing devices are one example of devices used to route communications between nodes on different buses. Typically, a node on a first bus sending a packet to a node on a second bus, will send an indirect command to the routing device, which writes to a register space within the routing device and request the routing device to send the packet to the node on the second bus. When receiving this request from the node on the first bus, the routing device will then reformulate the packet and send it to the node on the second bus)

However, the Admitted prior art is silent to disclosing receiving a communication from the first node including an address value having a bus number and a node number, together forming an address of a routing device which is coupled to both the first and second bus, and a routing value used to determine an address of the second bus.

Domon (U.S. Patent No. 6,678,781) discloses a topology map suitable for the network configuration system in a network composed of a plurality of IEEE 1394 serial buses joined by bridges (a routing device) (see col. 3, lines 35-37); comprising:  
The routing device (bridges 10, 11, 12) coupled to the first bus (bus 50) and the second bus (bus 52) (see figure 4E);  
Receiving a communication from one of the first plurality of node (see col. 2, lines 3-10), the communication including an address value having bus number (bus ID) and a node number (physical ID) (see col. 7, lines 1-14), together forming an address of the routing device (bridges 11, 12, 10, figures 4E), and a routing value (the routing value includes the bus ID and node number (physical ID) corresponding to the node which the router should route the packet ) (see col. 7, lines 5-14, col. 8, lines 52-67) used to determine an address of a targeted one of the second plurality of nodes;  
Extracting the routing value (bus ID and node number) from the address value within the communication (see col. 7, lines 5-14, col. 8, lines 52-67);  
remapping the address value of the communication to correspond to the address of the targeted one of the second plurality of node utilizing the routing value (see col. 7, lines 5-14, col. 8, lines 52-67);

Art Unit: 2664

transmitting the remapped communication with the remapped address on the second bus to the targeted one of the second plurality of nodes (see col. 7, lines 5-14, col. 8, lines 52-67).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the admitted prior art with the teaching of Domon to provide the routing device which coupled the first bus and the second bus in order to perform the whole routing map setting after a bus ID has been assigned to every bus. Therefore, it would have been enable the combined system to remap address values (bus ID and node number) and transmit on the appropriate bus structure directed to the appropriate node.

9. In the claims 2, 13, 19, 25, Domon discloses the communication is a bus packet (see col. 7, lines 5-14, col. 8, lines 52-67).

10. In the claims 3, 8, 14, 20, 26, the admitted prior art discloses the routing value includes the address of the second node and an offset value within memory space of the second node (see page 3, line 20, the address offset with the node itself is specified).

11. In the claims 4, 6, 8, 9, 15, 16, 21, 22, 27, 28, Domon discloses remapping the address value (bus ID and node number (physical ID) of the communication includes utilizing a table index value (the routing map) within the routing value to obtain the address of the second node from a location with a routing table (the routing map) corresponding to the table index value (see col. 7, lines 5-14, col. 8, lines 52-67).

Art Unit: 2664

12. In the claims 5, 11, 17, 23, 29, Domon discloses the first bus and second bus both substantially comply with a version of an IEEE Std 1394 standard (see col. 7, lines 5-14, col. 8, lines 52-67).

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuong Ho whose telephone number is (571) 272-3133. The examiner can normally be reached on 8:00AM to 4:00PM.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2664

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chuong Ho  
Examiner  
Art Unit 2664

02/08/05

A handwritten signature in black ink, appearing to read 'W. Ho', followed by a long horizontal line extending to the right.